

A server room with blue and yellow lighting. The server racks are illuminated with blue light, and the floor is lit with yellow light. The background is a dark blue geometric pattern.

➤ Adaptable Intelligence: The Next Computing Era

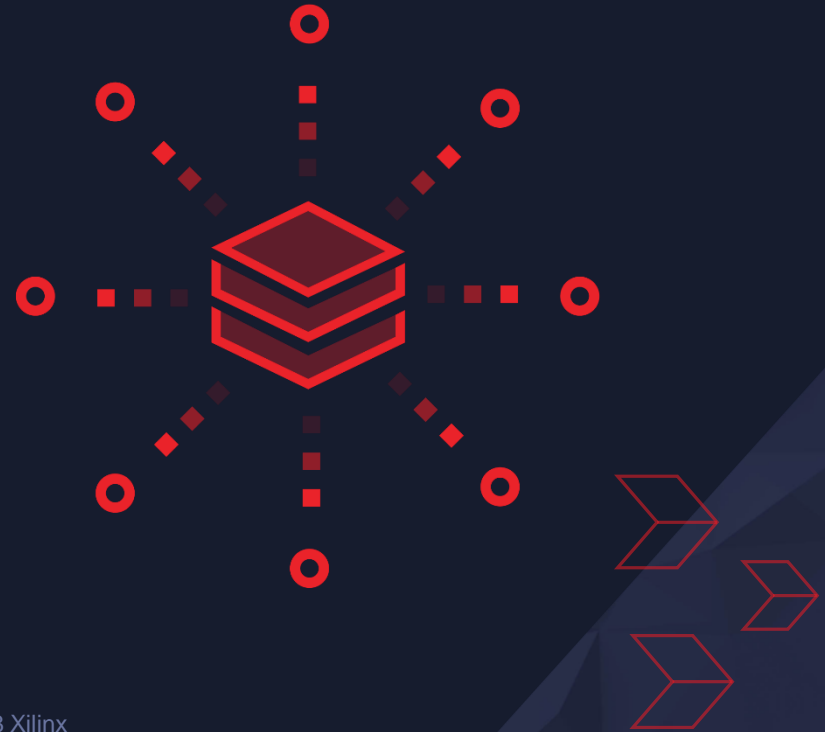
Victor Peng | CEO

Three red chevron arrows pointing right, arranged in a descending staircase pattern.

➤ Three Big Trends

Explosion of Data

- > 90% Unstructured
- > Video & Image Content
- > Needs Higher Throughput & Real-Time Computing



➤ Three Big Trends

Dawn of AI

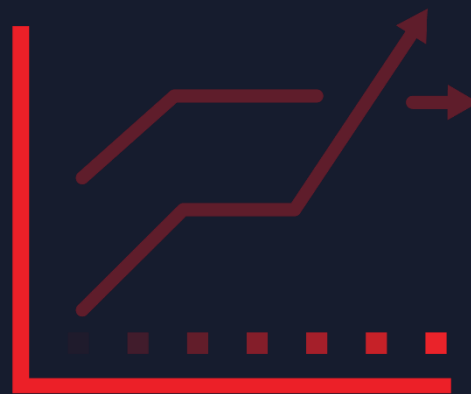
- > Adoption Across All Industries
- > Injecting New Intelligence into Apps
- > From Endpoints to Edge to Cloud



➤ Three Big Trends

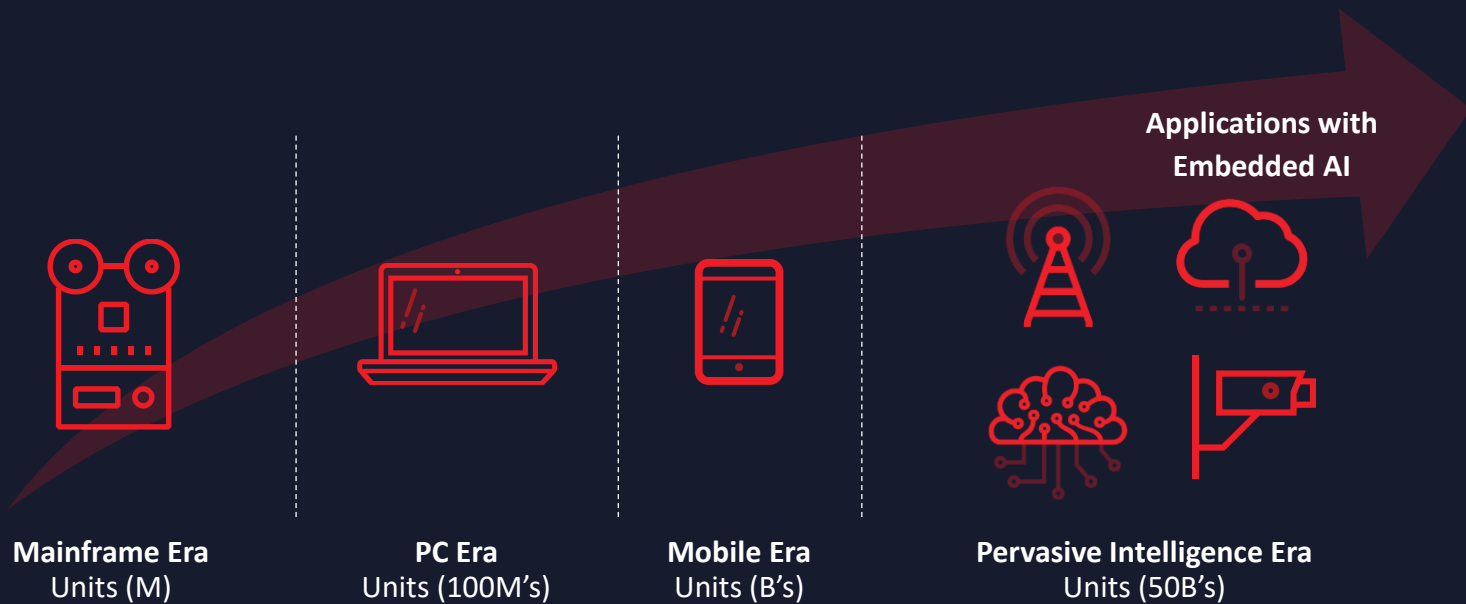
Computing After Moore's Law

- > Heterogeneous Computing with Accelerators
- > Breadth of Apps and AI Require Different Architectures
- > Speed of Innovation Outpacing Silicon Design Cycles



Era of Pervasive Connected Intelligence

Adaptable Platforms Enable Rapid Deployment of Domain Specific Architectures (DSA's) for Performance and Energy Efficiency



The Imperative to Accelerate Innovation Deployment to Market

AI Papers Published

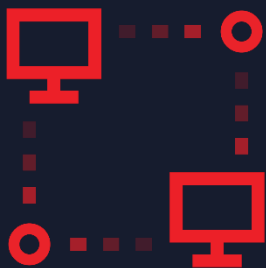


Source: Scopus

Over-the-Air Updates



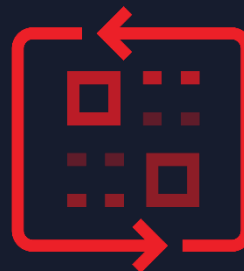
The Era of Pervasive Intelligence Needs Adaptable Computing and DSA's



Everything Intelligent
& Connected



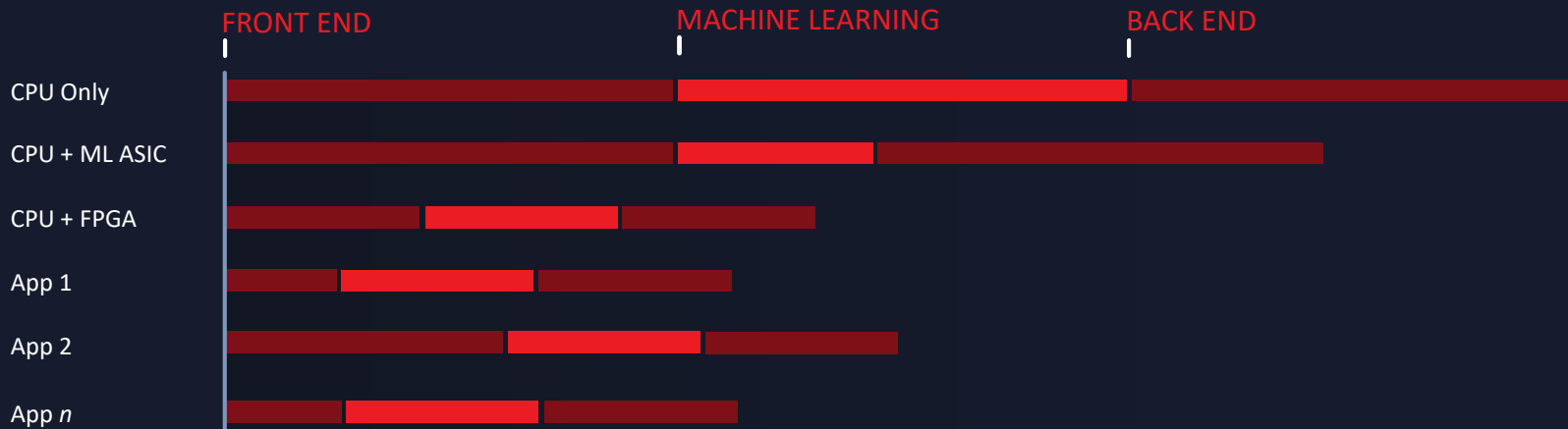
Deployed at
Massive Scale



Dynamic Markets Need
Rapid Innovation &
Deployment

➤ Whole Application Acceleration on Adaptable Platforms

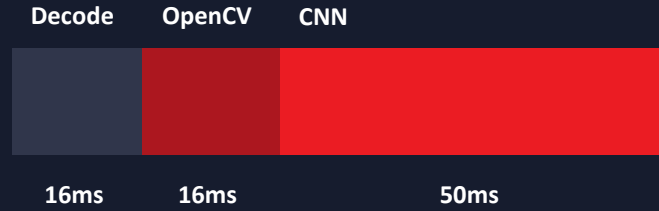
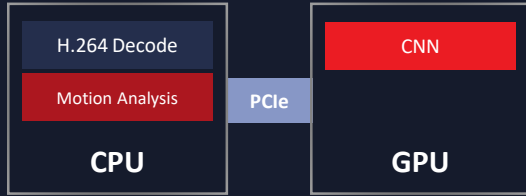
Execution Time



➤ Example: Smart / Safe City



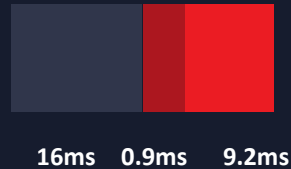
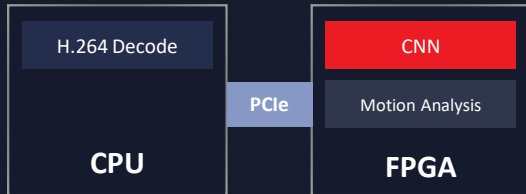
CPU-GPU



> Power: 75W > Latency: 82 ms > Throughput: 4x12 fps

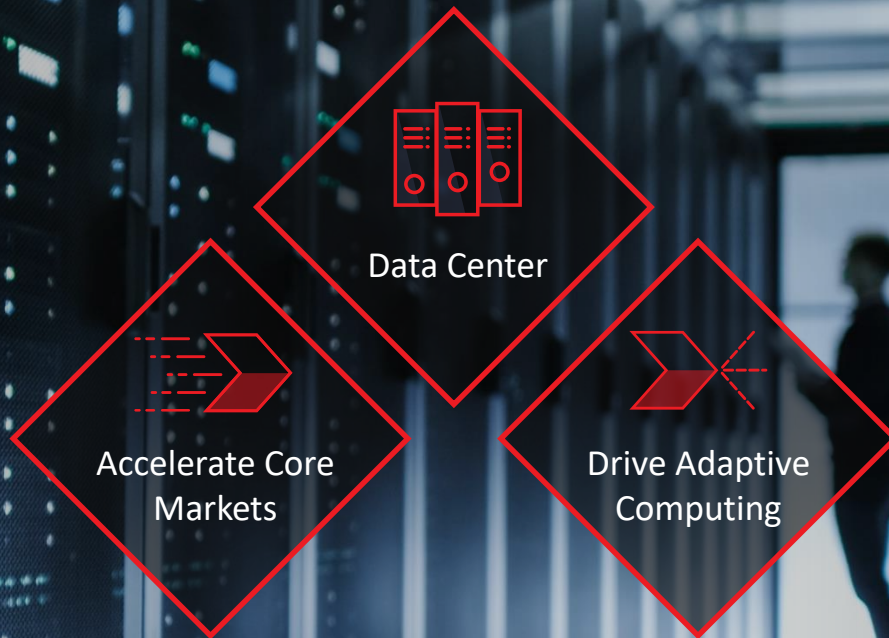


CPU-Xilinx FPGA



> Power: 5W > Latency: 26.1 ms > Throughput: 4x38 fps

Xilinx Strategy



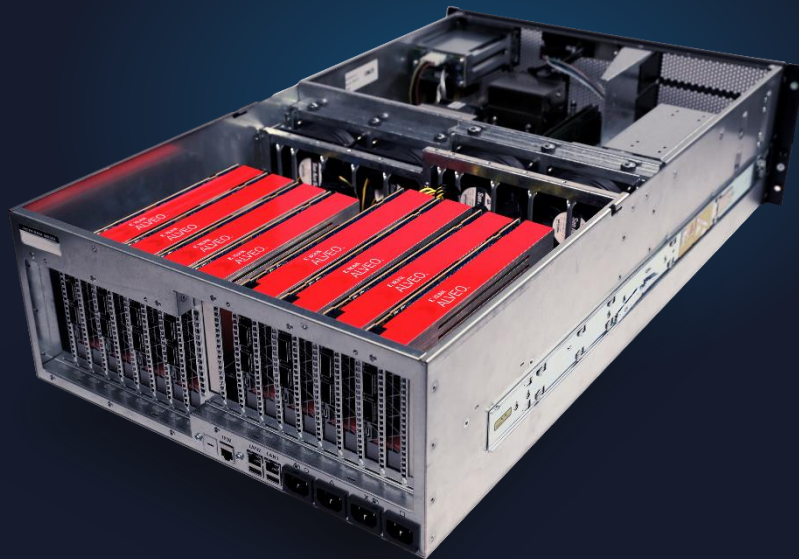
➤ Low-Latency, Highest Throughput Inference

30K images / sec
on GoogLeNet

AMD EPYC
CPU

Alveo U250
Accelerators

Performance Scaling Up
to 8 Accelerators

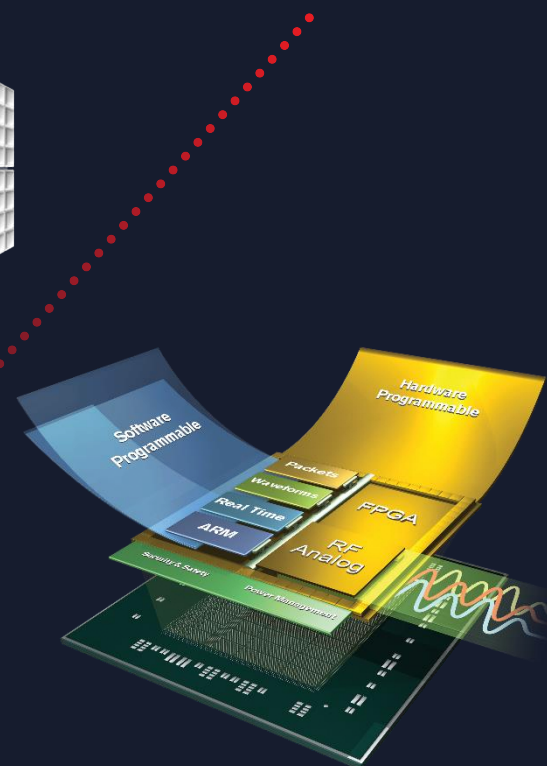
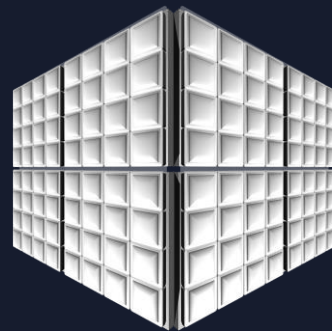


*batch=1, INT8



➤ RFSoc Leading the Way to 5G

- > 16nm Zynq MPSoC Architecture with Integrated 4GSPS ADC, 6 GSPS DAC, and Programmable SDFEC
- > Enables mMIMO with Dynamic Beamforming
- > 7nm Versal with 10x Performance Increase for AI Beamforming and Cell Site Management

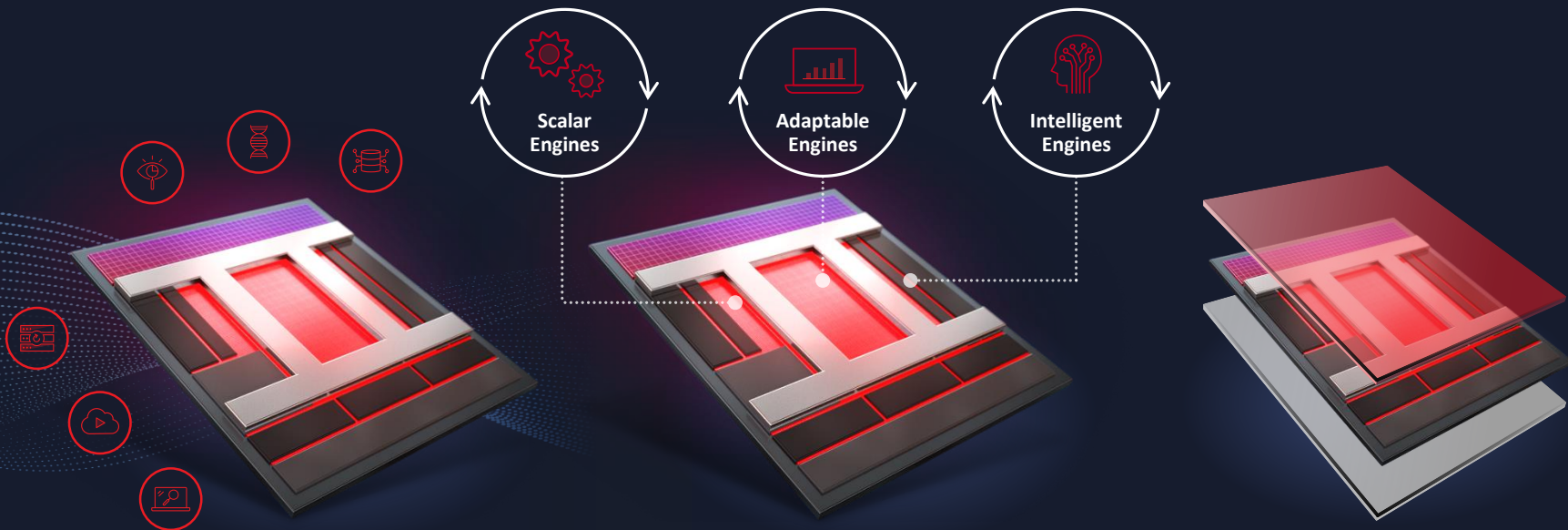


ACAP – The Next Big Advance in Adaptive Computing

Adaptive

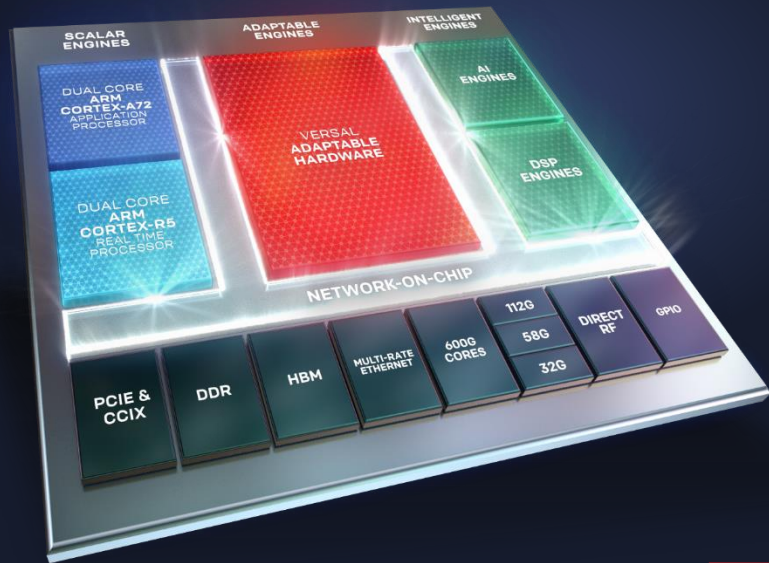
Compute Acceleration

Platform





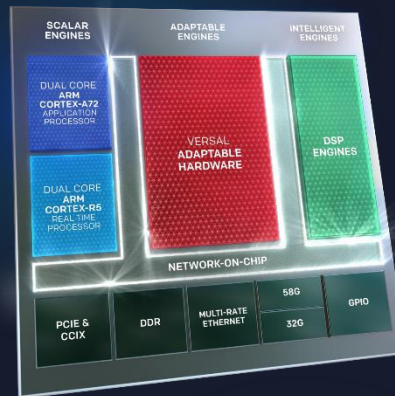
XILINX VERSAL™



Versal Prime Series

Broad Applicability Across Multiple Markets

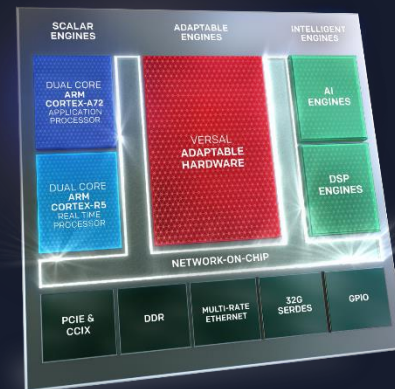
- Mid-Range Series in the Versal Portfolio
- Optimized for Connectivity
- For In-Line Acceleration and Diverse Workloads



Versal AI Core Series

Breakthrough AI Inference Throughput

- Portfolio's Highest Throughput for Low-Latency Inference
- Optimized for Cloud, Networking, and Autonomous Applications
- For Highest Dynamic Range of AI and Workload Acceleration





XILINX
VERSAL™



AI Edge 系列



AI Core 系列



AI RF 系列

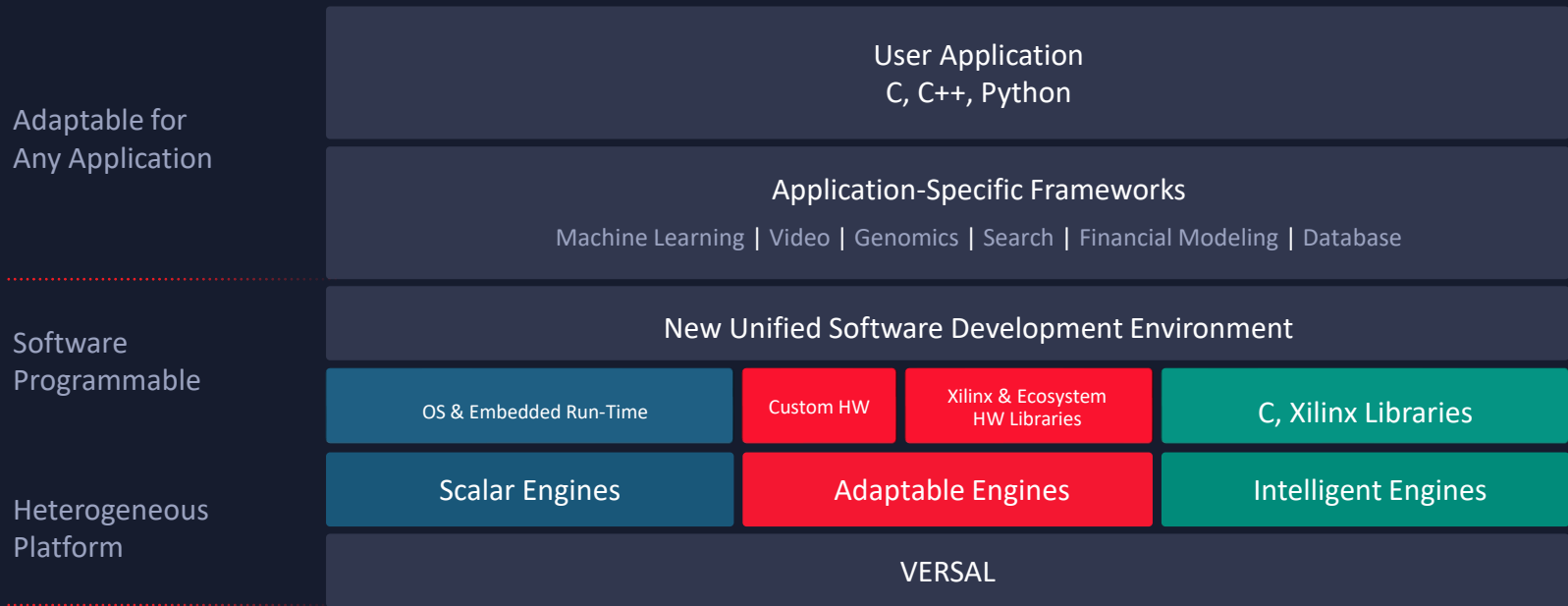


Premium 旗舰系列

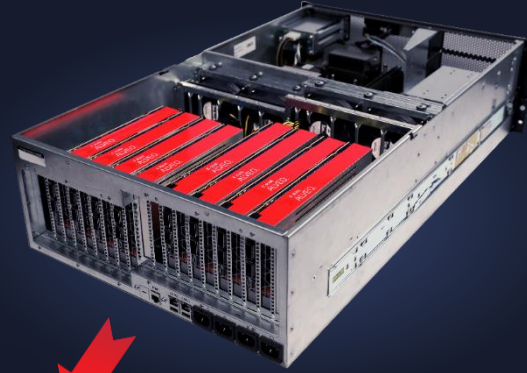


HBM 系列

➤ Platform for Any Developer



➤ Low-Latency CNN Inference Performance



Versal AI Core

Accelerating AI and Innovation End-to-End in China

**Xilinx @ China International
Import Expo (CIIE)**



Xilinx Developer Forum (XDF)



CIIE Shanghai, Nov.5-10,2018

XDF Beijing, Oct.16,2018



Building the Adaptable, Intelligent World